THE EFFECT OF YOGIC PRACTICE AND PLYOMETRIC TRAINING ON SELECTED MOTOR ABILITIES PSYCHOLOGICAL AND PHYSIOLOGICAL VARIABLE OF TRACK AND FIELD ATHLETES

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INTRODUCTION

Athletics is called as queen of sports, which includes T&F events such as: all the types of running, throwing and walking also. The uniqueness of athletics is that it requires a lack of costly equipment and it also helps to athletes in various types of sports because through athletic events the players can develops their Strength, Speed, Endurance and Flexibility, which are required in all sports either Individual sports or Team sports. Athletic events are generally categories in individual sports. As I already mention that Athletics are divided in four types of events, which are describes accordingly.

Running: Running is an event which required 200 m or 400m Track. In this we can organize various races short distance, middle distance and long distance100. And this event is won by the athletes with high speed in lesser time along with explosive starting.

Throwing: Throwing is divided in various events like Discuss throw, Shot-put throw, hammer throw and Javelin. These all are also individual events. In throwing events an athletes required heavy body weight as compare other events. In throwing events the distance will be measured by the set point which is made in their respective sectors.

Jumping: It includes various types of events e.g., LJ, HJ, TJ and pole vault. In jumping competitions, athletes are judged along with their jumping length and height. In jumping events the distance will be measured from a board or specific marker till their landing with heel. In athletics there are also some “combined sports” which includes heptathlon for women and decathlon for men. In these types of events athletes has to compete all types of events, which are included in track and field and has to earned the points to in performance in each event. In athletics an individual has to choose one specialization to achieve their goals.

YOGA

Yoga is popularly defined as a union of mind and body. A union which brings harmony between mind and body. But certainly, it is more than just a union. A famously said it is a 'way ofliving yoga has been a part of Rich Indian History. The Saptrish's have spread the knowledge of yoga all around globe. Yoga is considered as Art and as well as science of healthy living. Physical posture and movements (asanas) breathing techniques (pranayama) and meditation are the three main practice of yoga. The body's is considered as sacred in yoga because it is the vehicle for the development of wisdom and spiritual awakening as such monetary of the body is considered the foundation for spiritualprogress.

We learn a bodily discipline in yoga that comes from being conscious and sometimes to our body's settle energy flown and the life -giving rhythm of our being. The motion is that by delving deeper and more delicately into our physical experience, we can become more connected to ourselves, more grounded, and less influenced by from or neurotic craving for things that don't genuinely please us. This has the potential to have a very good impact on our way of living, providing on antidote to alienated hurrying and alienation from ourselves that characteristics modern existence.

Ancient Yoga has gained in popularity in the modern western world. Its appearance has gain from photographs of Indian amazing practice of outstanding flexible cotton clod ascetics, as the hippy culture of the 1970's. Many westerners seeking peace, security and happiness incorporate yoga into their daily lives.

PLYOMETRIC TRAINING

Plyometric is a training and exercise used forjumping and get the most power in the shortest time by muscles. The main aim of plyometric training is enhancing power along with Speed & strength. This training always focuses on learning to move from extension (adoption) to a contraction (shrinkage or wreckage) in explosive way, such as in unique repeated jumping. Plyometric exercises are very helpfulto athletes such as high jumpers,

sprinters and wrestlers etc. to improve their performance in their respective field. And these are also helpful in the field of fitness.

Advantages of Plyometric exercises

- Plyometric training is helpful to increases muscular strength by muscles stretchingand contracting in the very shortest time.
- Plyometric exercises are also strapping aerobic exercise, which is very important to improve physical components such as speed, endurance andstrength.

For doing safely and effectively polymeric exercise an athletes should have good strength and fitness level for avoiding stress of to the tendons, ligaments and lower joints. The systematic way to do polymeric exercise is slowly increases duration, difficulty and intensity of the exercise.
There are so many types of plyometric exercises for different parts of the body.
Like: -Leg's exercise, Upper body exercise, Exercise for Runners that will helps for every sports person to enhance their performance.

Plyometric exercises have many benefits:
It requires very less equipment. It can be done anywhere at any time. It enhances muscular strength, which helpful to an individual to run fast and high jump with explosive reaction. Plyometric exercises are also important to improve individual's performance in sports including running, jumping and hitting. It also important to improve cardiovascular health. It also tones up entire body along with burning calories. Plyometric exercise also done by non-athletes to improve their fitness level and doing daily routine activities.

STATEMENT OF THE PROBLEM

The main aim of this study will be to identifythe" Effect of yogic practice and plyometric Training on Selected Motor abilities Psychological and Physiological Variable of T&FAthletes"

DEFINITION OF THE TERMS

Athletics: - A sport which includes running, jumping and throwing skills as a part of athletic event.

Yoga: - It is about harmonizing the body, spirit and mind to unlock our higher potential in life through yoga, asana, meditation and pranayama.

Asana: - The sage Patanjali defines Asana as a third limb of Ashtanga Yoga in which individual need to sit in a stable, pleasing and comfortable position.

Speed: - how fast something is moving, without considering which way it's going, it's a measure of how quickly an object cover a certain distance in a given amount of time.

Agility: Ability of a body to change its direction and position efficiently and effectively in relation to a stimulus.

Resting Pulse Rate: - Resting pulse rate of an individual is number of times his or her heart beats in a minute when individual in not active or atrest.

Vital capacity: Vital capacity defines as maximum amount of air expired by individual after a forceful inspiration.

OBJECTIVES OF THE STUDY

The purpose of this study is to study the impact of yogic practice and plyometric trainingon

1. Examine the effects of plyometrics and yoga training on the speed of runners and athletes.
2. Examine the effects of plyometrics and yoga training on the agility of runners and athletes.

3. Examine the effects of plyometrics and yoga training on the flexibility of runners and athletes.
4. Examine the effects of plyometrics and yoga training on the anxiety of runners and athletes.
5. Examine the effects of plyometrics and yoga training on theaggression of runners and athletes.
6. Examine the effects of plyometrics and yoga training on the vital capacity of runners and athletes.
7. Examine the effects of plyometrics and yoga training on the resting pulse rate of runners and athletes.

DELIMITATIONS

The researcher listed the following delimitations of the study below.

1. To fulfill the aim of this research, 60 athletes will be selected from various universities colleges of TelanganaState.
2. Age of the subjects will be delimited in between twenty to twenty-five years.
3. Furthermore, the study will be delimited to track and field athletesonly.
4. The present study will be delimited on state levelsprinters.
5. The present study will be delimited to 12 weeks training program by keeping the purpose of the study inmind.
6. Study will be delimited to few selected yoga asanas and pranayama by keeping the purpose of the study into consideration namely Tadasana, Hastapadasana, Paschimottonasana, Bhujangasana, Katichakrasana, Vajrasana, Sukhasana andSavasana.
7. Further in case of physiological variable the study will be delimited to VC and RestingPR
8. Anxiety and Stress will be selected as psychological variables for the purpose of thestudy.

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SIGNIFICANCE OF THE STUDY

1. The outcome of this observation may be of great help to PET, coaches and instructor to utilize Yogic Practice and Plyometric education to enhance the Motor abilities, Psychological and Physiological Variables of thesubjects.

2. This research highlights the extent of Motor abilities, Psychological and Physiological Variables of thesubjects.

3. This research may be beneficial and effective pointers for the enhancement of Motor abilities along with variables such as psychological andphysiological.

HYPOTHESES OF THE STUDY

1. It will be hypothesized that significant effect of Yogic Practice and Plyometric training on speed of T&Fathletes.
2. It will be hypothesized that significant effect of Yogic Practice and Plyometric training on agility of T&Fathletes.
3. It will be hypothesized that significant effect of Yogic Practice and Plyometric training on anxiety of T&Fathletes.
4. It will be hypothesized that significant effect of Yogic Practice and Plyometric training on Stress of T&Fathletes.
5. It will be hypothesized that significant effect of Yogic Practice and Plyometric training on Vital Capacity of T&Fathletes.
6. It will be hypothesized that significant effect of Yogic Practice and Plyometric training on Resting Pulse rate of T&Fathletes.

REVIEW OF RELATED LITERATURE

The researcher made a diligent effort to thoroughly review and consider all pertinent literature in the fields of yogic practice and sports training, ensuring a comprehensive understanding of the subject matter. The scholar has gathered data from a wide variety of sources, such as Research Quarterly, journals, encyclopedias, relevant publications, organizations about yoga, and websites about physical education on the Internet. The analyst discovered the following quick evaluations of the current study:

HayesM and Chase S. (2010) It conducted a study on the theme of "Yoga Prescription". the increasing popularity of yoga in the United States. They found that more than 15.8 million individuals engage in,people are practicing yoga citing the desire to enhance their overall health as the reason for starting yoga. The study highlighted yoga as a contemporary practice encompassing principles, techniques, and exercises aimed at integrating the body, breath, and mind to promote well-being. By reviewing relevant research, the study explored the use of yoga, particularly asana-based yoga, as a therapeutic approach for various health conditions. The findings provided evidence of yoga's effectiveness as a complementary therapy for issues such as chronic pain, anxiety, depression, and cardiovascular health, among others. Overall, the study shed light on the historical background, different forms, and research-supported benefits of yoga as a valuable tool in improving health and wellness.

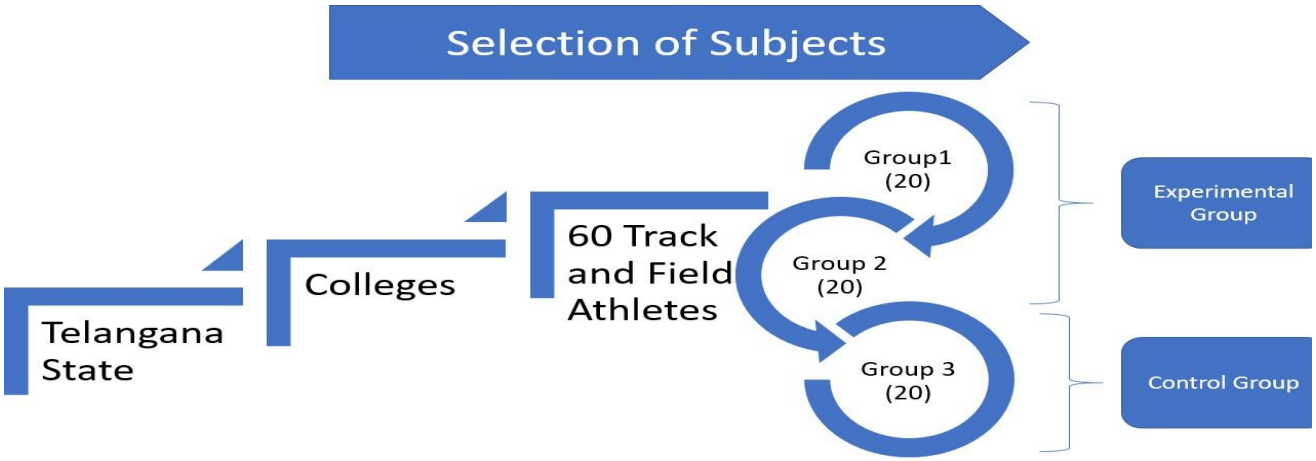
RoseAand Thomas S. (2010) did research on"The health benefits of yoga and Exercises ". The research study provided a scholarly review of the literature pertaining to research studies which compared the effects of Yoga and exercises on a variety of health outcomes and health conditions. Using PubMed (R) did research by searching reviews from core scientific and nursing journals. 81 studies met including criteria. The selected studies were classified as uncontrolled (n=30), wait list controlled (n=16) or Comparison (n=35). The comparison intervention (n=10) involved exercise. These studies were included in this review. From the studies which the researcher reviewed, the results showed that Yoga interventions seemed to be equal or superior to exercise in nearly all factors measured except those involving physical fitness.

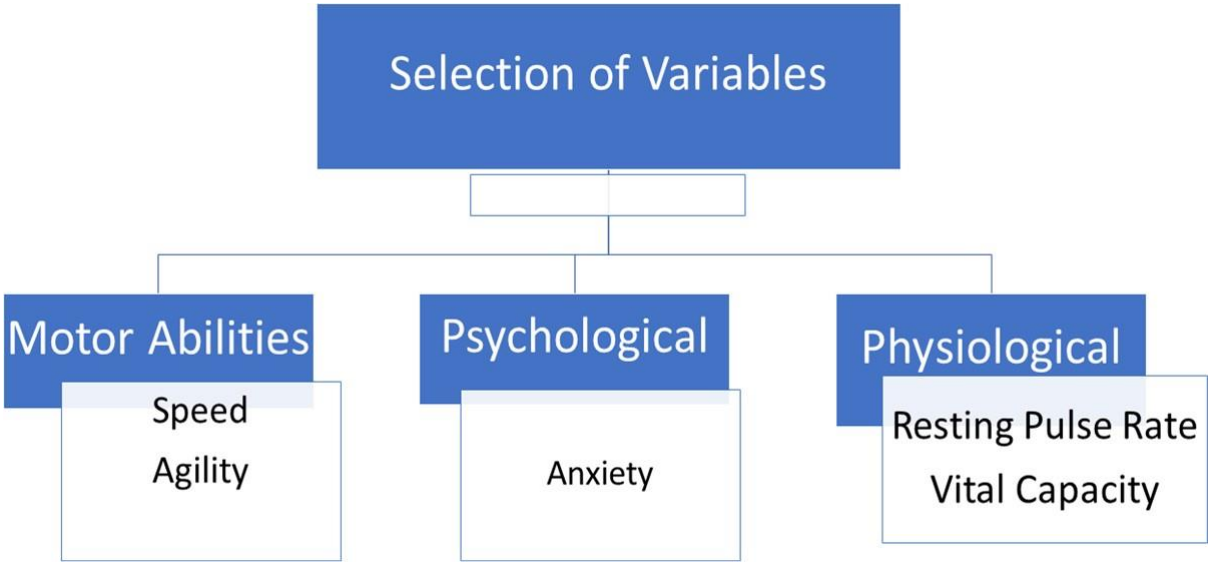
Sodhi C., Singh S. and DandonaP.K. (2009) carried out a research study on the effect of Yoga Training on Pulmonary Functions in patients in with Bronchial Asthma". Yoga breathing exercises are recognized as a valuable adjunctive treatment for asthma 120 patients with asthma were randomly divided into two groups: Group A was the yoga group, while Group B served as the control group.Each group consisted of 60 patients, and pulmonary function tests were conducted at baseline, 4 weeks, and 8 weeks. The majority of participants in both groups (group A 34 and B 32) had mild illness.This resultsthat yogic breathing exercises used in combination with standard medication significantly improved lung function in patients with bronchial asthma.

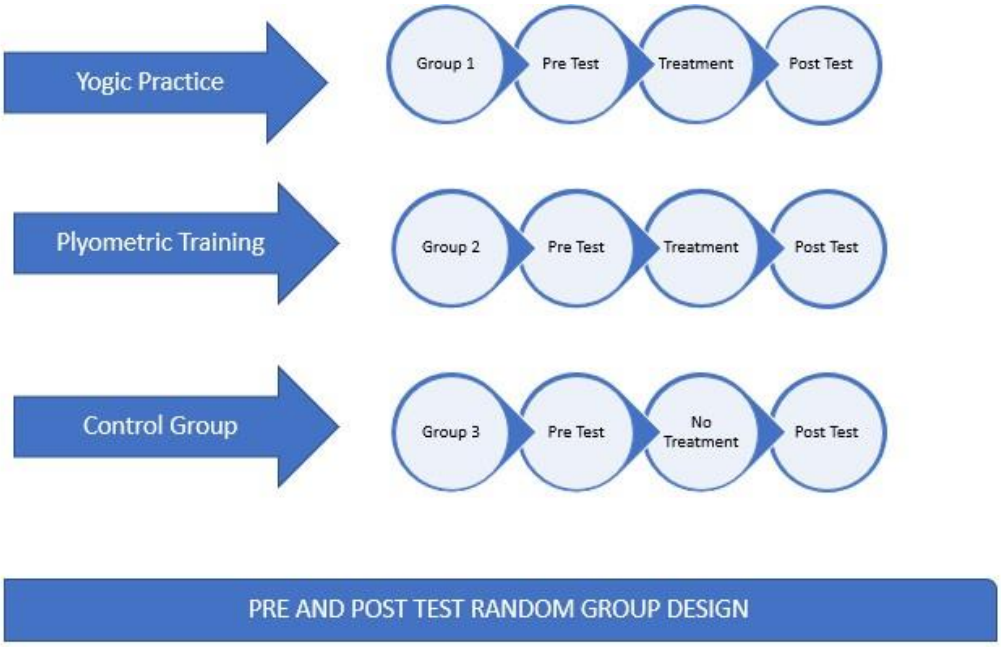
Mahadevan S.K, Madan Mohan et al. (2008) did a study on "Effect of six weeks Yoga training on weight loss following step Test, Respiratory pressures, Handgrip strength and HandgripEnduranceinYounghealthysubjects". This study resulted to invested the impact of six weeks of yoga training on sweating response, respiratory pressures, handgrip strength, and handgrip endurance during dynamic exercise. The researcher selected 46 healthy subjects (30 males, 16 females) with half undergoing yoga training and the other half acting as controlled subjects. Weight loss, maximum inspiratory and expiratory pressures, handgrip endurance and handgrip strength were measured pre and post the 6-week period. Results showed that consistent yoga practice for six weeks significantly improved respiratory muscle strength.

Thombre D.P, Madan Mohan et al. (1992) conducted a study on "Effect of Yoga training on Reaction Time, Respiratory Endurance and Muscle Strength". A study investigated the impact of yoga practice on reaction times, respiratory pressure, breath-hold times, and hand grip force. 27 students underwent 13 weeks of yoga training. The findings revealed that after 12 weeks, yoga significantly decreased reaction times and increased respiratory pressure, breath-hold times, and handgripforce.

RESEARCH METHODOLOGY







SELECTION OF TEST AND QUESTIONNAIRE

S.no.	Variables	Testing tools
1.	Speed	50 Meter Dash
2.	Agility	Shuttle Run
3.	Anxiety	Questionnaire
4.	Stress	Questionnaire
5.	Resting Pulse Rate	Radial Artery
6.	Vital Capacity	Spiro meter

Experimental Group-1

Plyometric training program schedule

1st to 4th Week

S.NO	EXERCISE	DURATION (In second)	TOTAL NUMBER OF SET	INTENSITY (IN%)	RECOVERY BETWEEN SETS (In second)
1	Squat jump	45	2	40-50	3-4
2	Box jump	45	2	40-50	3-4
3	Lateral box jump	45	2	40-50	3-4
4	Bounding	45	2	40-50	3-4
5	Zig zag hops	45	2	40-50	3-4

5th to 8 Week

S.NO	EXERCISE	DURATION (In second)	TOTAL NUMBER OF SET	INTENSITY (IN%)	RECOVERY BETWEEN SETS (In second)
1	Squat jump	60	3	50-60	4-6
2	Box jump	60	3	50-60	4-6
3	Lateral box jump	60	3	50-60	4-6
4	Bounding	60	3	50-60	4-6
5	Zig zag hops	60	3	50-60	4-6

9^{th} to 12^{th} Week

S.NO	EXERCISE	DURATION (In second)	TOTAL NUMBER OF SET	INTENSITY (IN%)	RECOVERY BETWEEN SETS (In second)
1	Squat jump	70	3	60-70	4-6
2	Box jump	70	3	60-70	4-6
3	Lateral box jump	70	3	60-70	4-6
4	Bounding	70	3	60-70	4-6
5	Zig zag hops	70	3	60-70	4-6

Experimental Group-II

Yogic practice program schedule

1^{st} to 4^{th} Week

S.NO	EXERCISE	DURATION (minutes)	TOTAL NUMBER OF SET	INTENSITY (IN%)	RECOVERY BETWEEN SETS (In second)
1.	Surya namaskar	5minutes			
2.	Asana	25minutes	3	40-50	30 sec

	TadasanaHastapadasanaPaschimottonasanaBhujangasanaKatichakrasanaVajrasanaSukhasana Savasana	25 minutes	3	40-50	30

5th to 8 Week

S.NO	EXERCISE	DURATION (minutes)	TOTAL NUMBER OF SET	INTENSITY (IN%)	RECOVERY BETWEEN SETS (In second)
1.	Surya namaskar	5minutes			
2.	Asana				
	TadasanaHastapadasanaPaschimottonasanaBhujangasanaKatichakrasanaVajrasanaSukhasana Savasana	25 minutes	3	50-60	30

9th to 12th Week

S.NO	EXERCISE	DURATION (minutes)	TOTAL NUMBER OF SET	INTENSITY (IN%)	RECOVERY BETWEEN SETS (In second)
1.	Surya namaskar	5minutes	5		

2.	Asana			60-70	
	TadasanaHastapadasanaPaschimottonasanaBhujangasanaKatichakrasanaVajrasanaSukhasana Savasana	25 minutes	3	60-70	30

TENTATIVE CHAPTALIZATION

In my thesis five chapter will include namely: -

Chapter 1: - Introduction

Chapter 2: - Review of related literature

Chapter 3: - Methods and Procedures

Chapter 4: -Analysis of Data and Results of the Study

Chapter 5: - Summary, Conclusions and Recommendations

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